NIDA Director's Report to the NIH Collaborative Research on Addiction (CRAN) Council

Nora D. Volkow, M.D.

Director

National Institute on Drug Abuse

National Institutes of Health

May 11, 2022





Jack Stein, MSW, Ph.D. NIDA Chief of Staff Retired, Dec 31

Office of Research
Training, Diversity &
Disparities

Office of Translational Initiatives and Program Innovations



AIDS Research Program

International Program



Office of Management

Office of Science Policy & Communications

Intramural Research Program Division of Extramural Research

Jennifer A. Hobin, Ph.D.

NIDA International Program now managed by OSPC

Center for the Clinical Trials Network

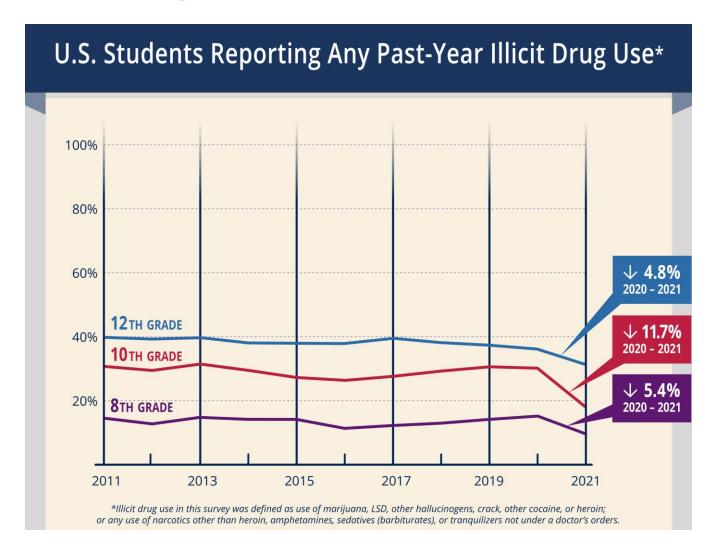
Division of Therapeutics and Medical Consequences

Search for Director, DTMC

Division of Neuroscience and Behavior

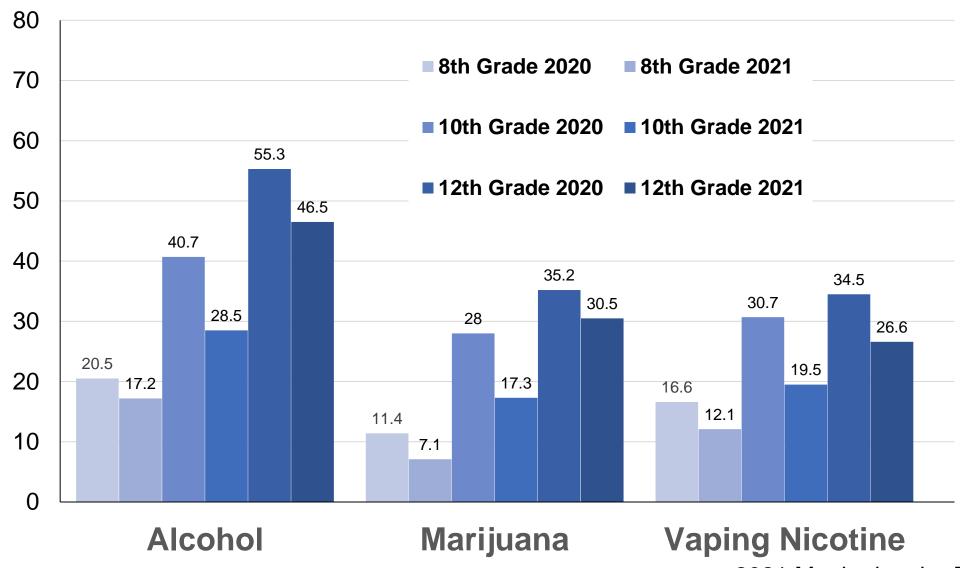
Division of Epidemiology, Services and Prevention Research

Monitoring the Future Survey 2021

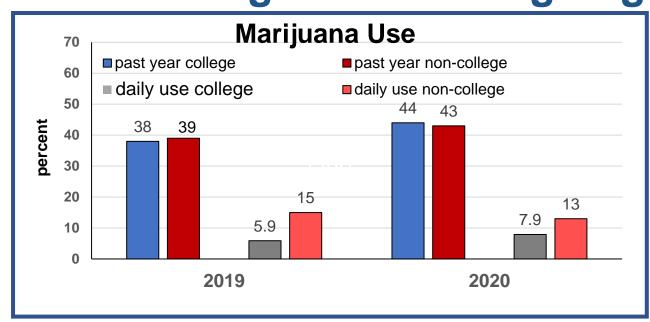


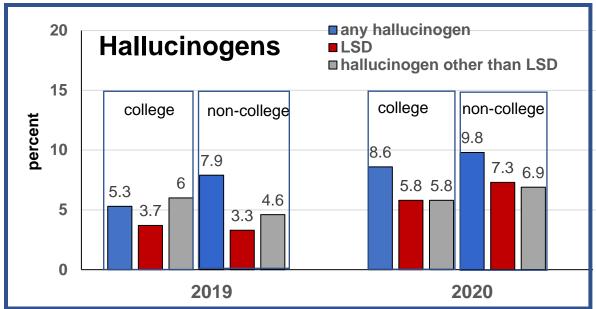
Decreases in use across most substances, including – alcohol, marijuana, and vaped nicotine

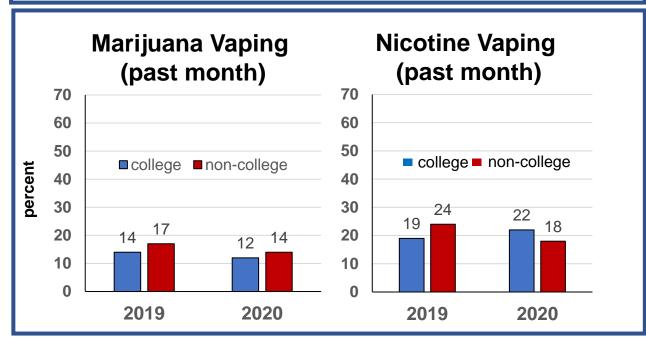
Past-Year Alcohol Use, Marijuana Use, and Vaping Nicotine for 2020 and 2021

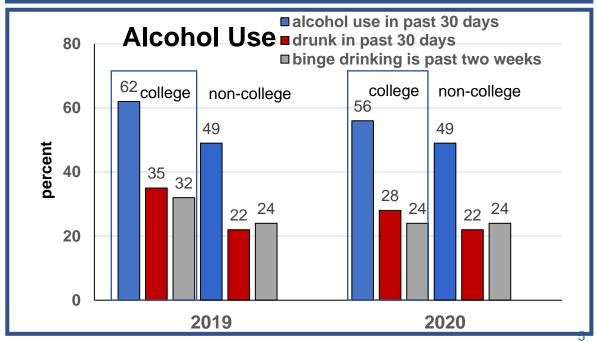


Drug Use in College Age Adults in 2020 MTF



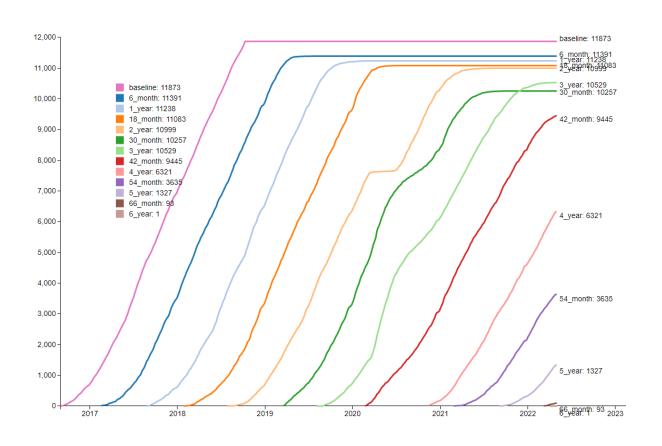


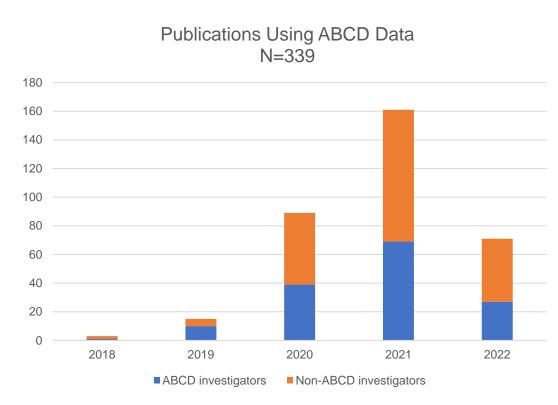




Adolescent Brain Cognitive Development Study

98.1 Percent Retained





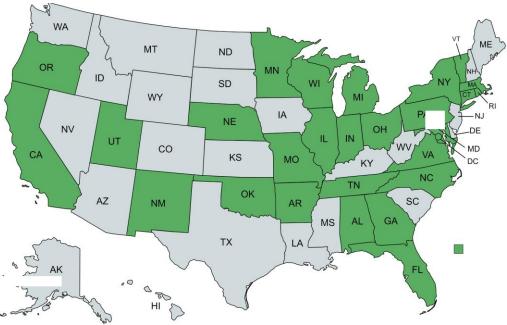


Longitudinal study to understand normative neurodevelopment from birth to 9-10 years in 7500 infants and assess impact of in utero exposures to drugs and harmful environments

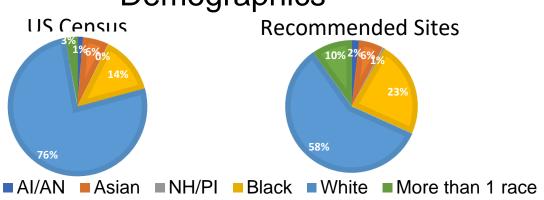




Babies · Brains · Bright Futures



Demographics



Substance and other risk and protective factor exposures



EEG ERP



Biospecimens for substance use, genomic, epigenomics, nutrition, toxins, and COVID-19

Wearable biosensors: heart rate (HR), HR variability, sleep/wake cycles, physical activity



Behavioral, observational, and neurocognitive assessments



MRI: structural, diffusion, resting state connectivity, spectroscopy

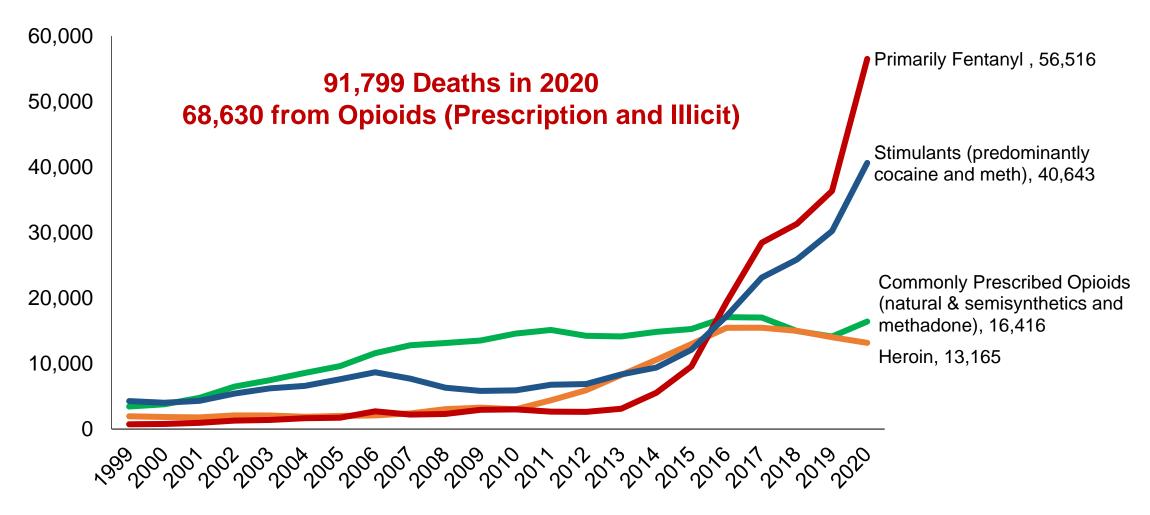
Drug Overdose Deaths* Continue to Increase in 2021

	ALL DRUGS	HEROIN	NAT & SEMI SYNTHETIC	METHADONE	SYNTHETIC OPIOIDS (mainly illicit fentanyl)	COCAINE	OTHER PSYCHO- STIMULANTS (mainly meth)
11/2020*	92,366	13,698	13,667	3,593	56,595	19,953	23,894
5/2021	101,075	11,633	13,909	3,802	64,871	21,235	28,890
11/2021*	106,854	9,504	13,643	3,619	70,420	23,908	32,476
Percent Change 11/20-11/21	15.7%	-30.6%	-0.2%	0.7%	24.4%	19.8%	36.0%

^{*}NCHS Provisional drug-involved overdose death counts are <u>PREDICTED VALUES</u>, 12 months ending in select months. <u>https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm</u>

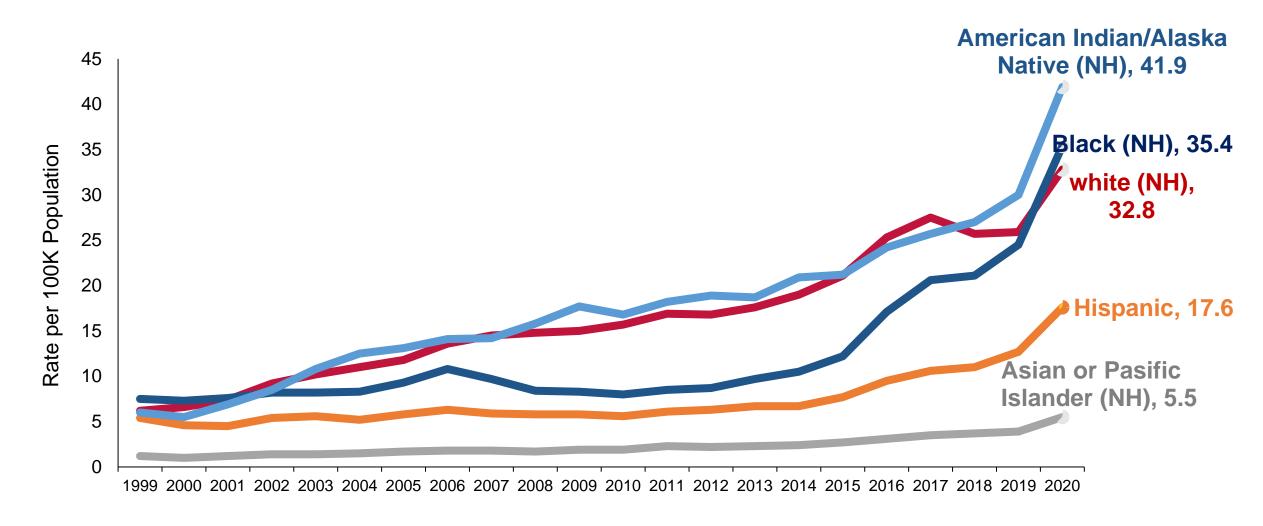
Evolution of Drivers of Overdose Deaths, All Ages

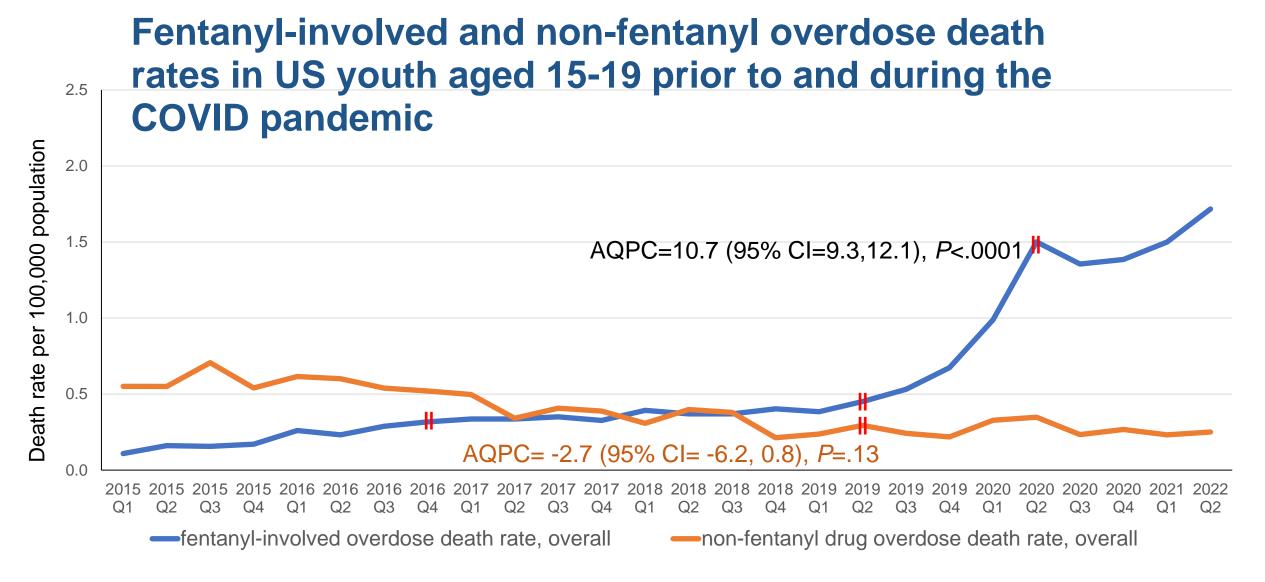
Analgesics -- Heroin -- Fentanyl -- Stimulants



Source: The Multiple Cause of Death data are produced by the Division of Vital Statistics, National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), United States Department of Health and Human Services (US DHHS).

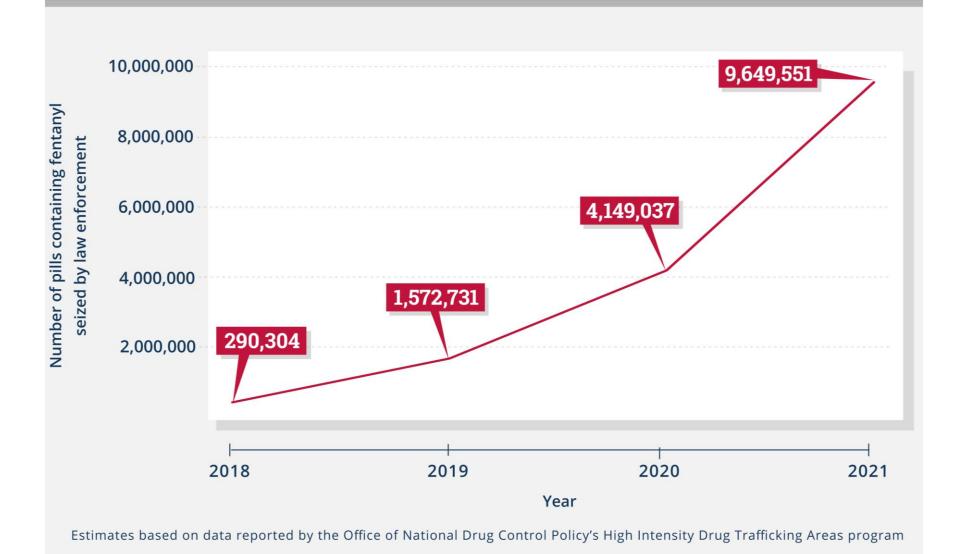
Drug Overdose Death Rates by Race/Ethnicity





National Vital Statistics System multiple-cause-of-death 2015-2020 final and 2021 provisional data U.S. census monthly data. II: Joinpoints indicate significant changes in nonlinear trends using Bayesian Information Criterion. AQPC=average quarter percentage change during 2015 Q1-2022 Q2. ICD-10 cause of death code: synthetic opioids other than methadone (T40.4, primarily fentanyl and analogs).

Number of Pills Containing Fentanyl Seized by Law Enforcement in the United States, 2018 – 2021



Reference: JJ Palamar, et al. Drug and Alcohol Dependence. DOI: 10.1016/j.drugalcdep.2022.109398 (2022)

Addressing Overdose Deaths in 2022

- Pain treatments crucial but not sufficient.
- Treatment Opioid Use Disorders crucial but not sufficient.
 - Retention
 - Recovery
- Treatment of other Substance Use Disorders
- Overdose treatment: drug combinations, stimulant overdoses
- Prevention drug use including but not limited to opioids
 - Screening and appropriate treatment intervention for SUD (mild-severe)
- DATA: Timely reporting of fatal and non-fatal overdoses
 - Emerging new drugs and drug mixtures (xylazine)
- Social Determinant of Health

NIDA Name Change Proposal



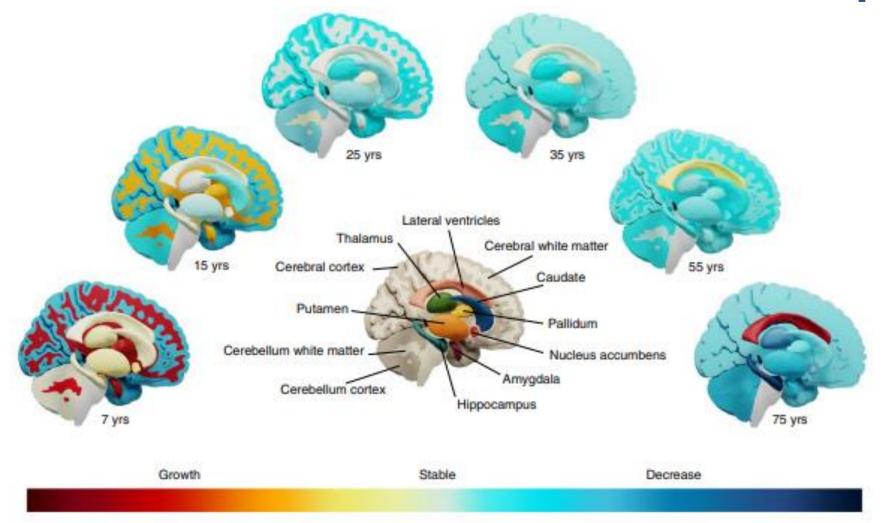
"...pervasive stigma against people with substance use disorders (SUDs) remains a major barrier to treatment.

Language is a powerful driver of negative bias; even the word "abuse," may perpetuate stigma against people who use drugs and deter people with SUD from seeking treatment.

As a step toward reducing that stigma, NIDA is proposing that the Institute be renamed the 'National Institute on Drugs and Addiction.'"

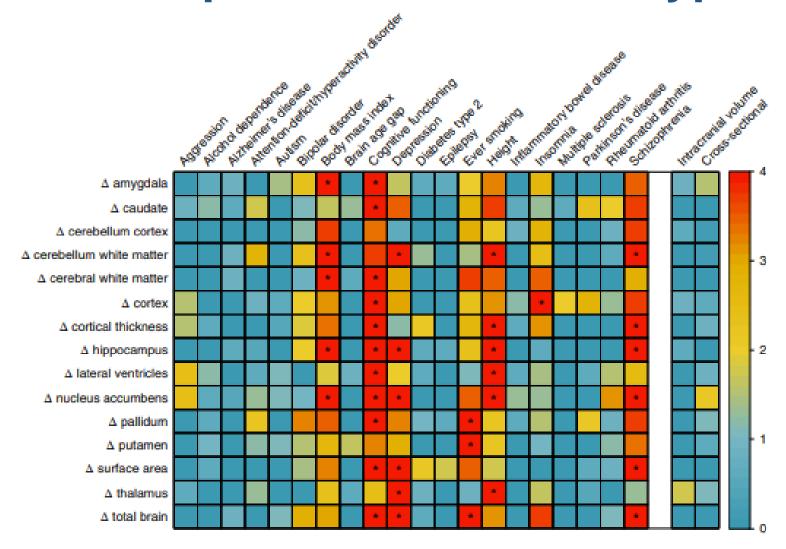
THANK YOU!

Genetic Variants Associated With Longitudinal Changes In Brain Structure Across The Lifespan



1. Brouwer RM, Klein M,...Garavan H,...Hulshoff Pol HE. (2022) Genetic variants associated with longitudinal changes in brain structure across the lifespan Nat Neurosci. 25(4):421-432.

Genetic Overlap With Other Phenotypes



1. Brouwer RM, Klein M,...Garavan H,...Hulshoff Pol HE. (2022) <u>Genetic variants associated with longitudinal changes in brain structure across the lifespan</u> Nat Neurosci. 25(4):421-432.

Remote and At-home Data Collection: Considerations for the NIH HEALthy Brain and Cognitive Development (HBCD) Study

